

(22) Date of filing: **26.11.2008**

- **Fatemi-Ghomi, Navid**
Frimley, Surrey GU16 8UT (GB)
- **Yan, Aiguo**
Andover, MA 01810 (US)
- **Taylor, Jason**
Godalming, Surrey GU7 1LE (GB)

(74) Representative: **Conroy, John et al**
Fish & Richardson P.C.
Highlight Business Towers
Mies-van-der-Rohe-Straße 8
80807 München (DE)

(72) Inventors:
• **Pedersen, Carsten Aagaard**
Belmont, MA 02478 (US)

(57) A wireless receiver uses a joint detection Viterbi (JDV) algorithm to demodulate a signal that has a desired signal component and an interference signal component. The desired signal component includes a training sequence and at least one data field. The training sequence and a corresponding portion of the interference signal component is demodulated using the JDV algorithm to

evaluate possible transmitted training sequences and interference signal sequences, and channel estimations for the desired signal component and the interference signal component are generated. The at least one data field is demodulated according to the JDV algorithm using the channel estimations as initial channel estimates for the JDV algorithm.





EUROPEAN SEARCH REPORT

Application Number
EP 08 17 0002

5

10

15

20

25

30

35

40

45

50

55

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 1 475 931 A1 (SIEMENS AG [DE] HEWLETT PACKARD DEVELOPMENT CO [US]) 10 November 2004 (2004-11-10) * paragraphs [0018], [0019], [0025], [0027], [0029], [0032] *	1-15	INV. H04L25/03 H04L25/02
X	----- SCHOENEICH H ET AL: "Single antenna interference cancellation: iterative semi-blind algorithm and performance bound for joint maximum-likelihood interference cancellation", GLOBECOM'03. 2003 - IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE. CONFERENCE PROCEEDINGS. SAN FRANCISCO, CA, DEC. 1 - 5, 2003; [IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE], NEW YORK, NY : IEEE, US, vol. 3, 1 December 2003 (2003-12-01), pages 1716-1720, XP010677673, DOI: 10.1109/GLOCOM.2003.1258530 ISBN: 978-0-7803-7974-9 * the whole document *	1-15	TECHNICAL FIELDS SEARCHED (IPC)
X	----- SCHOENEICH H ET AL: "Iterative semi-blind single-antenna cochannel interference cancellation and tight lower bound for joint maximum-likelihood sequence estimation", SIGNAL PROCESSING, ELSEVIER SCIENCE PUBLISHERS B.V. AMSTERDAM, NL, vol. 84, no. 11, 1 November 2004 (2004-11-01), pages 1991-2004, XP004591295, ISSN: 0165-1684, DOI: 10.1016/J.SIGPRO.2004.07.012 * the whole document *	1-15	H04L
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 4 May 2015	Examiner Belloni, Paolo
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03.02 (P04C01)

